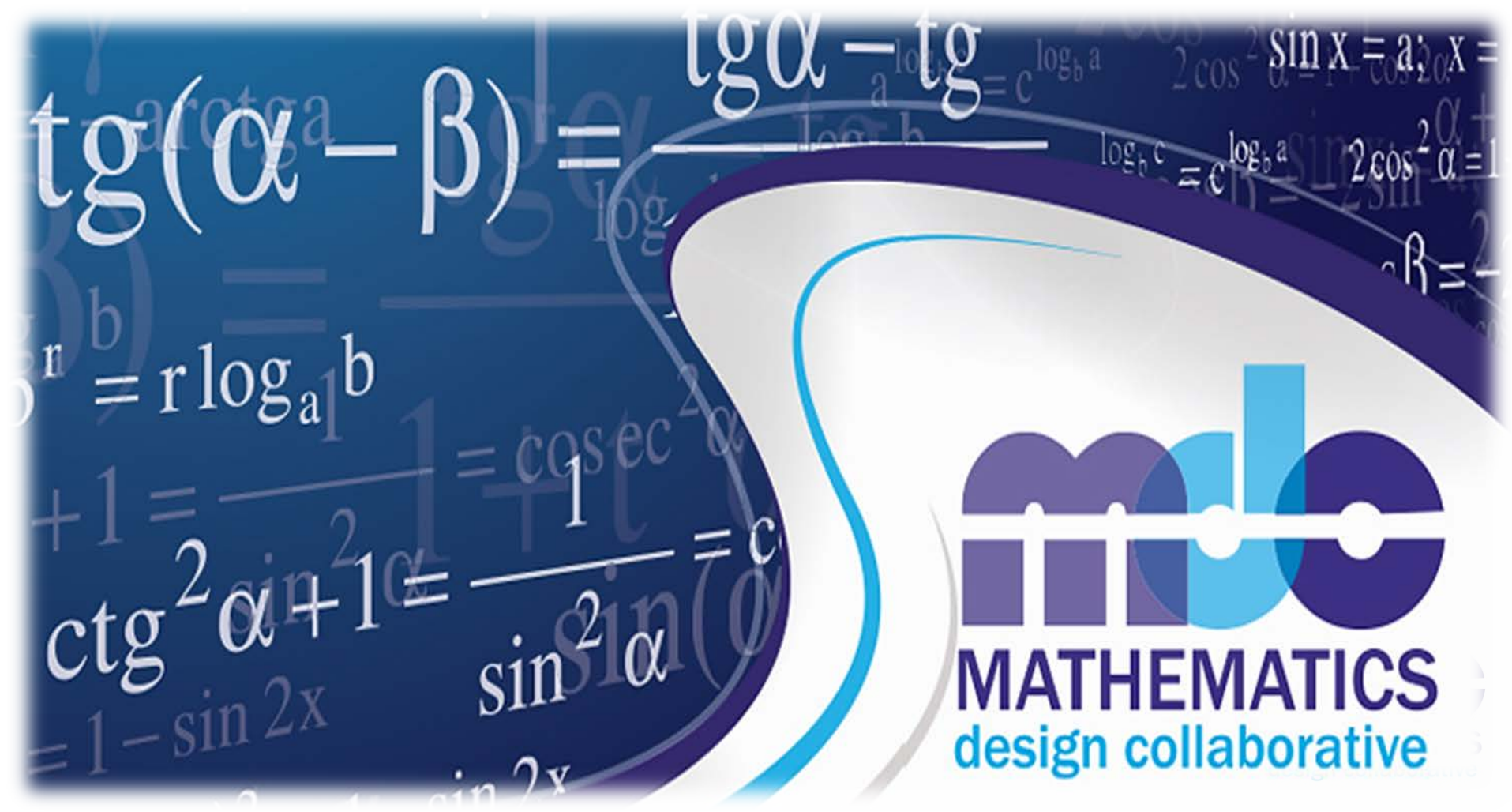


Day One: Elementary PA-Math Design Collaborative



Let's get our **Math Brains** working!

Please Complete the Task

“Counting Trees”

SCT – 7th Grade.



Introductions

- Name
- District
- Three numbers

Inside of the card :

If Math were a color, what color would it be and why?

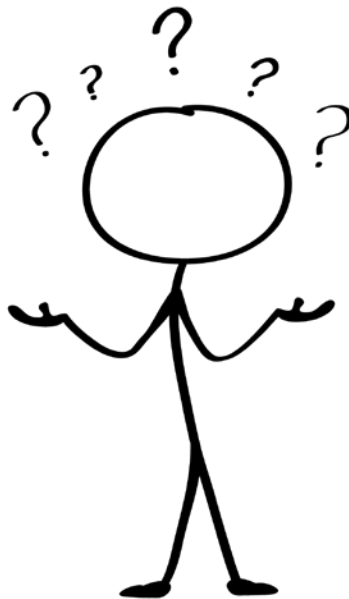
Samantha

IU 28

Essential Questions

- What expectations for math instruction do the Core Standards place on teachers?
- How can a teacher of mathematics connect the different math practices with the content standards to guide student growth and achievement toward proficiency?
- What does true formative assessment look and sound like in a classroom?
- What is the Math Design Collaborative and how does it support the key elements of math instruction and formative assessment?

What has happened to Math Education? Instructional Shift?



Academic Rigor: Through the Ages



Teaching Math in the 1950s:

***A logger sells a truckload of lumber for \$100.
His cost of production is $\frac{4}{5}$ of the price.
What is his profit?***

Teaching Math in the 1960s:

A logger sells a truckload of lumber for \$100. His cost of production is $\frac{4}{5}$ of the price, or \$80. What is his profit?

Teaching Math in the 1970s:

A logger sells a truckload of lumber for \$100. His cost of production is \$80. Did he make a profit?

Teaching Math in the 1980s:

A logger sells a truckload of lumber for \$100. His cost of production is \$80 and his profit is \$20. Your assignment: Underline the number 20.

Teaching Math in the 1990s:

A logger cuts down a beautiful forest because he is selfish and inconsiderate and cares nothing for the habitat of the animals or the preservation of our woodlands. He does this so he can make a profit of \$20.

What do you think of this way of making a living?

Topic for class participation after answering the question: How did the birds and squirrels feel as the logger cut down their homes?

(There are no wrong answers and if you feel like crying, it's ok.)

Teaching Math in the _____s:

**A logger cuts down a truckload
of wood.**

**How would you calculate his
profit?**

For Better or Worse...Here We Are

The Pa Core Standards expect students to perform more cognitively demanding tasks...

...But how do we know if the tasks we give students to complete meet these rigorous standards?

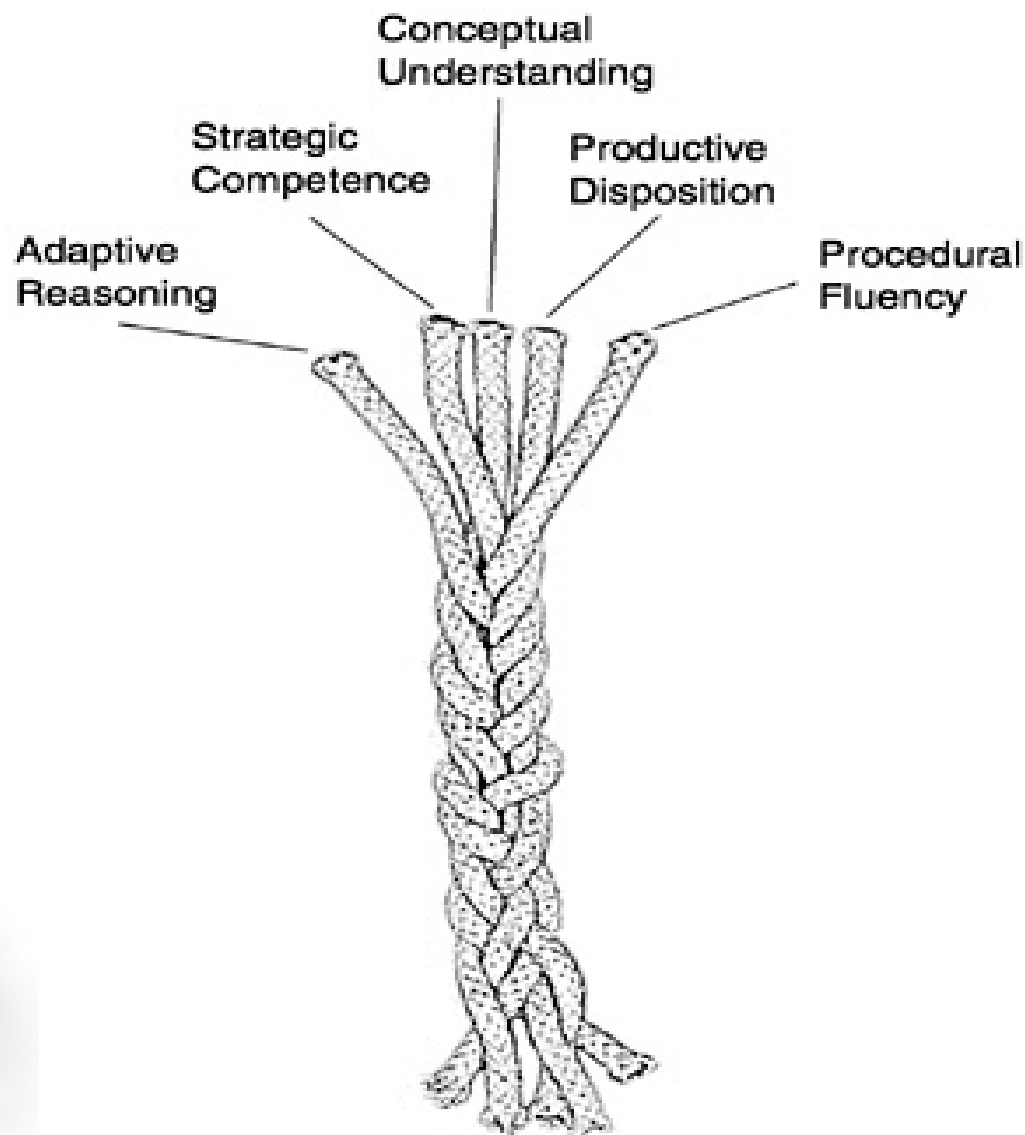
PART 1

To be proficient in the Core, what do students need to be able to do?





5 Essential Strands



- ***conceptual understanding***— comprehension of mathematical concepts, operations, and relations
- ***procedural fluency***— skill in carrying out procedures flexibly, accurately, efficiently, and appropriately
- ***strategic competence***— ability to formulate, represent, and solve mathematical problems
- ***adaptive reasoning***— capacity for logical thought, reflection, explanation, and justification
- ***productive disposition***— habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy

As a teacher I can ...

- conceptual understanding
- procedural fluency
- strategic competence
- adaptive reasoning
- productive disposition
- modeling, mapping, building vocabulary
- detect errors, peer-coaching, mental math, Math 24
- teaching strategies, talking about math / restating ideas
- organized -logic, presenting, convince me that you're right
- CAN DO MATH ! "I can..."statements

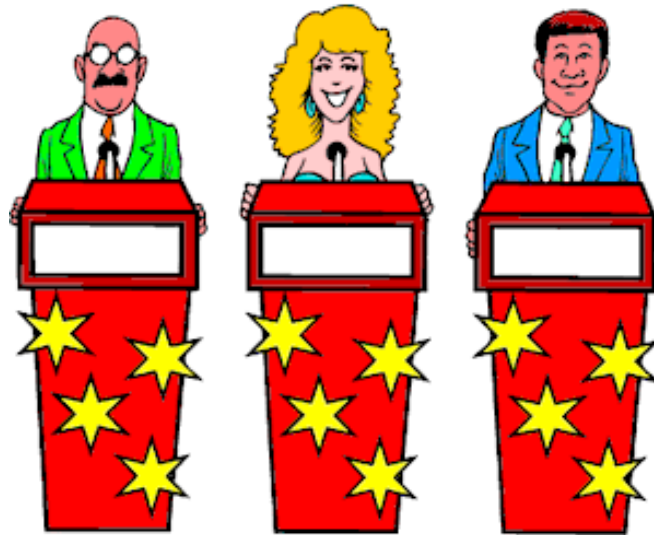


Round Table: “Brainstorming”

- All 5 components or strands are interdependent
- All 5 strands are identified as essential for all students
- All 5 strands must be included in math instruction at all grade levels
- The 5 strands provide a way to organize math instruction
- All strands can be matched with specific student instructional skills

Activity: QUIZ

“How well do you know the Pa
Standards for Mathematical Practice?”



Pa Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

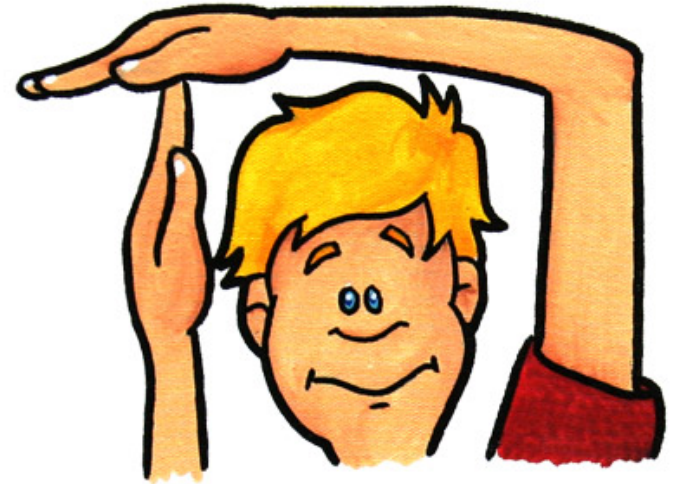
(www.corestandards.org)





PART 2

How do I know if my students are proficient in their understanding of the material that I am teaching?



TIME OUT!!!

Through the Use of Formative Assessment Teachers can Determine Who, What, Where, When...



Why do you assess your students?

Activity:

1. Make a list of the different types of assessments.
2. What different purposes do each assessment serve?



In your own words:

What is formative assessment?

- With your elbow buddy, write a definition on the marker board.



Defining Formative Assessment

- Formative assessment is defined as a **process** used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcomes.

CCSSO, Definition of formative assessment, 2008

The Process...

5 Critical Components and One Big Idea



5 Critical Components and One Big Idea

1. Sharing Learning Intentions
2. Questioning (Eliciting Evidence)
3. Feedback
4. Self Assessment
5. Peer Assessment

**** Use evidence about learning to adapt teaching and learning to meet student needs.**

In order to build a comprehensive framework for formative assessment what do you need to keep in the forefront of your mind ?

1. Establishing where learners are in their learning

2. Establishing where they are going

3. Establishing how to get there



Dylan Wiliam

LOOKS LIKE/SOUNDS LIKE

Activity:

1. Consider: “What does formative assessment look like and sound like in the classroom.”
2. Write responses on page 9.



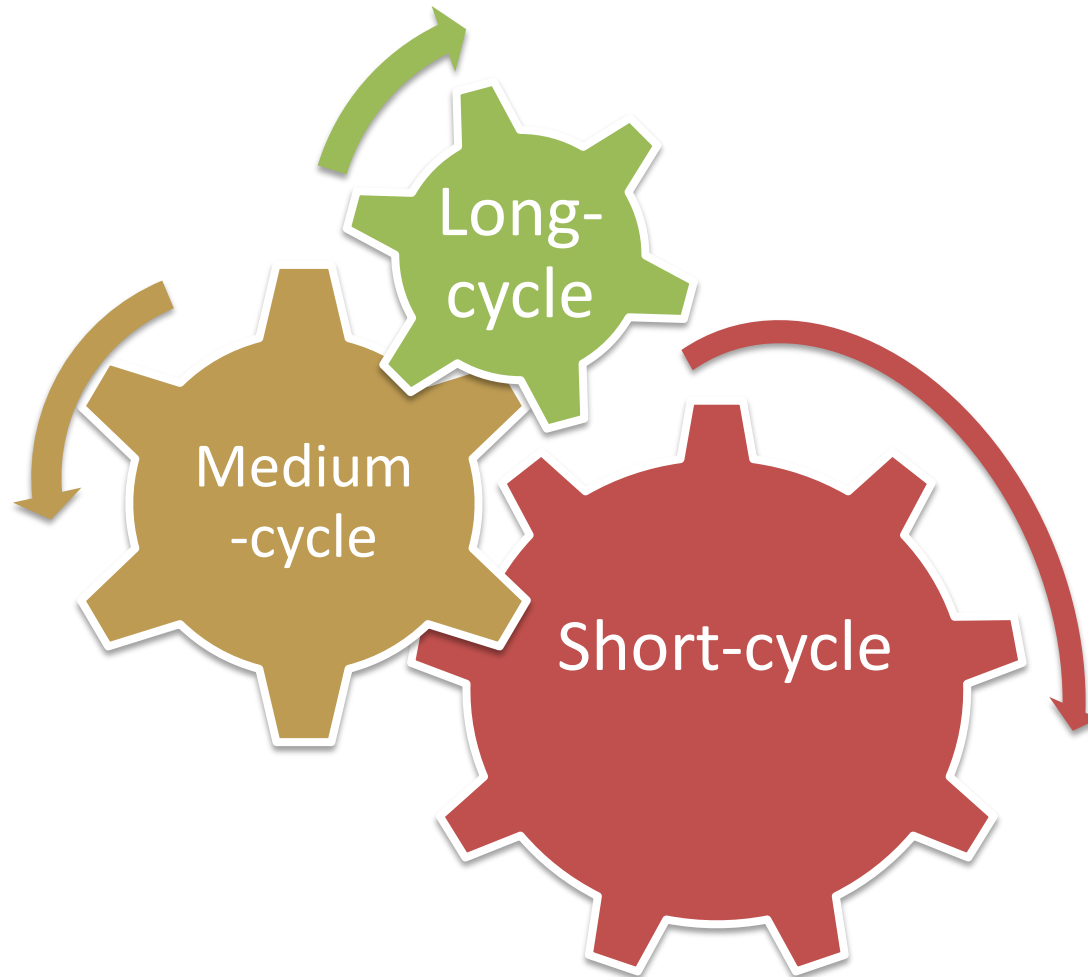
Jigsaw

Five “Key Strategies” for Effective Formative Assessment

by: Dylan Wiliam



Types of Formative Assessment



Type	Focus	Length
Long-cycle	Across marking periods, quarters, semesters, years	4 weeks to 1 year
Medium-cycle	Within and between instructional units	1 to 4 weeks
Short-cycle	Within and between lessons	24-48 hours
•day-by-day		5 seconds to 2 hours
•minute-by-minute		

The Big Idea of Assessment for Learning

Students and teachers

Using evidence of learning

To adapt teaching and learning

To meet immediate learning needs

Minute-to-minute and day-by-day

(Thompson & Wiliam, 2007)



A Closer Look at FEEDBACK



Providing Feedback

- **Definition**

“Feedback is giving specific information about a person's current behavior in order to help him/her either continue the behavior or modify the behavior.”

(Ohio University)

Why Feedback?

“Formative assessment can enhance learning when it provides students with feedback about specific qualities of their work, and about how to improve.”

(Black & Wiliam, 1998)

John Hattie's Effect Size

Influence	Effect Size	Source of Influence
Feedback	1.13	Teacher
Student's prior cognitive ability	1.04	Student
Instructional quality	1.00	Teacher
Direct instruction	.82	Teacher
Acceleration	.72	Student
Remediation/feedback	.65	Teacher
Student's disposition to learn	.61	Student
Class environment	.56	Teacher
Challenge of Goals	.52	Teacher
Peer tutoring	.50	Teacher
Mastery learning	.50	Teacher

Video: Effect Size

Effect Sizes



Not All Feedback is Created Equal





Students benefit most from feedback that:

- Focuses on the task, not grades or scores.
- Is detailed rather than general.
- Explains why something is right or wrong.
- Is related to objectives.
- Makes clear what has been achieved and what has not.
- Suggests what the students may do next.
- Offers specific strategies for improvement.

Feedback can be broken down into 4 types

1. Evaluative Feedback

2. Descriptive Feedback



3. Effective Descriptive Feedback

4. Motivational Feedback

Evaluative	Descriptive	Effective Descriptive	Motivational
<p>Examples:</p> <p>“You’ve done well.” 73</p> <p>“Try harder.” “Good essay.”</p>	<p>Examples:</p> <p>“In your essay, you covered the main points. What could you add to water conservation to deepen your reader’s understanding?”</p> <p>“Most spelling is accurate. Found two errors. Find them.”</p>	<p>Examples:</p> <p>“I agree with the pattern identified in the table. I am not convinced the rule you wrote works. How could you prove this?”</p> <p>“In your essay you covered the main points related to conservation. What could you add to section on water conservation to deepen your reader’s understanding?”</p>	<p>Examples:</p> <p>“Your work has definitely improved. I like how you completed the assignment.”</p>
Measures with a score or a grade	Tells the learner what steps to take to move forward	Goal is to internalize the effective feedback	Goal is to make the learner feel good
Summarizes student achievement	Tells the learner what needs to be improved	Intended to be used by the learner to independently move his/her reasoning to the next level.	Intended to encourage and support the learner.
No guidance on how to improve	Gives guidance on how to improve the learners’ reasoning		Offers no guidance on how to improve the learner’s reasoning
Student gets the grade; the learning stops (William, p. 123, 2011)			42

Can You Spot the Not?

Activity:

Is it Formative?

(Ego vs. Task Related)



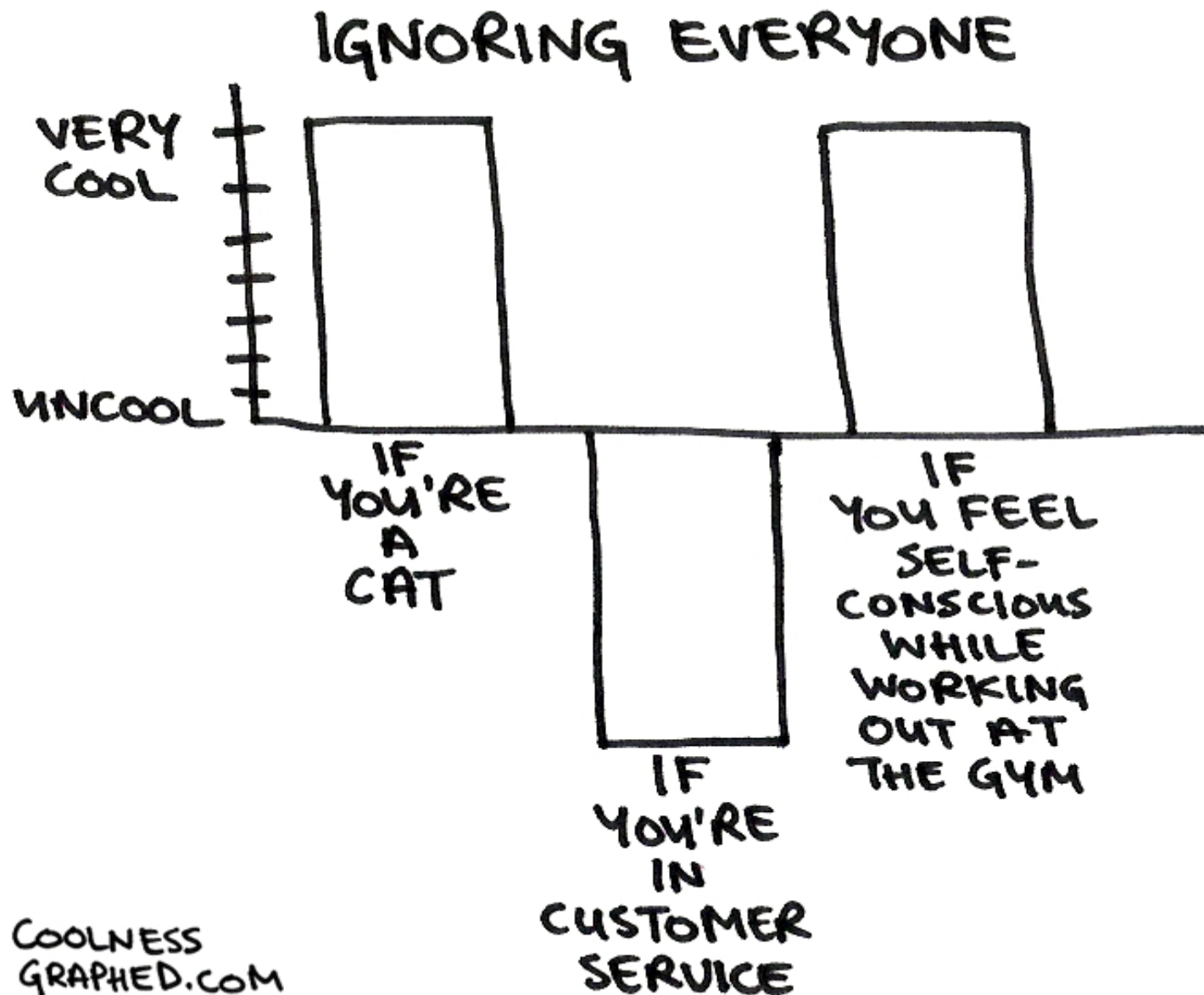
To Summarize...

- Feedback should be specific, descriptive and immediate.
- Feedback should always **move learning forward** by providing the students with an understanding of which behaviors are appropriate and which ones need to be changed.

What is the Math Design Collaborative
and how does it support the key
elements of math instruction and
formative assessment ?



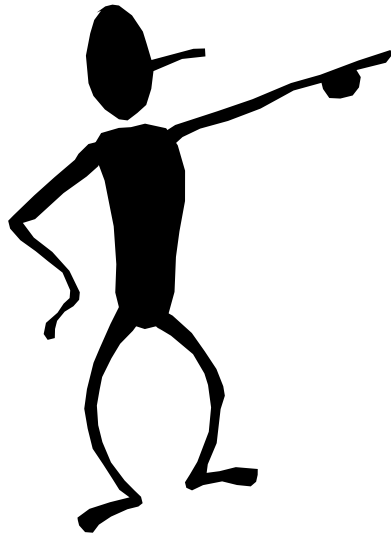
Lunch.



COOLNESS
GRAPHED.COM

What is the connection between formative assessment
and Math Design Collaborative?

Formative Assessment Lessons “FALs”



MDC is a national initiative that is working to provide teachers with a framework for designing and implementing **formative assessment lessons (FALs)** that provide teachers with formative assessment data and opportunities for feedback...

As well as, providing scripted, well-engineered, exemplary FALS to support US schools in implementing the Common Core State Standards for Mathematics (CCSS).



What are FALs?

Formative Assessment Lessons (FALs) are intended to engage students in a productive struggle that builds fluency with their procedural skills, and deepens mathematical reasoning and understanding.

FALs are meant to assist teachers ASSESS FOR LEARNING.

Purpose of FALs

Formative
Assessment
Lessons

- To inform the teacher
- To inform the students
- To identify misconceptions
- To provide feedback
- To guide further instruction
- To engage students
- To encourage deeper thinking
- To make sense of math

MDC in the Classroom



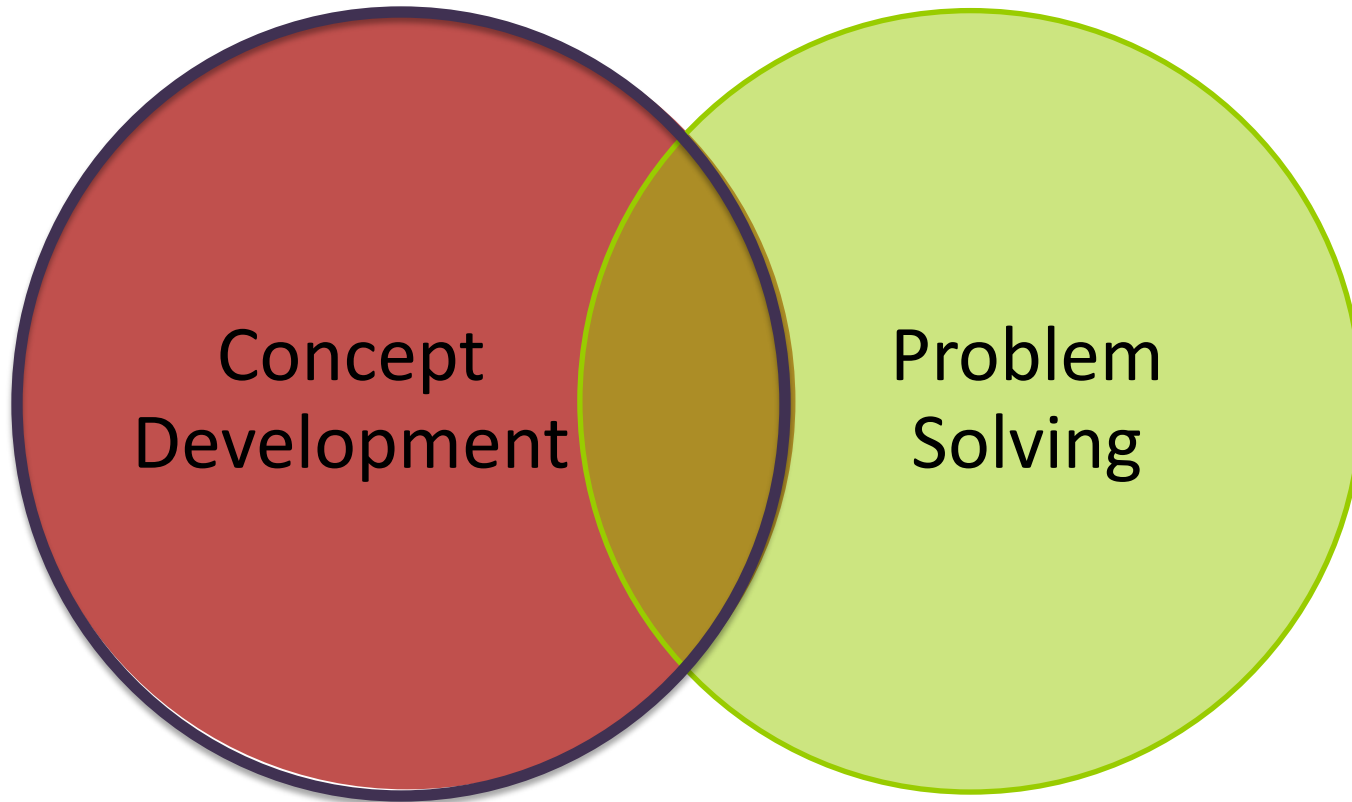


The MDC project is not designed as an additional program, but rather a process to enhance CC standards-based instruction.

- Achieves a balance among concepts, skills, and problem solving.
- Stresses rigorous concept development, presents realistic and relevant tasks, and keeps a strong emphasis on computational skills.

Two Types of FALs

Classroom Challenges



Concept Development FALs



Concept Development Lessons

In a nutshell



Concept Development FALs are designed to reveal students' prior knowledge and misconceptions so that instruction can be designed to develop students' understanding of important mathematical concepts and connect concepts to other mathematical knowledge.



CD Lesson The Process

Teach ----- approximately $\frac{2}{3}$ of unit



FAL



Teach ----- remaining $\frac{1}{3}$ with modifications of
instruction to clear up identified
misconceptions

Lets Take A LOOK



Penalty Shoot-Out

1. The bar chart represents the outcome of a penalty shoot-out competition. Each person in the competition was allowed six shots at the goal. The graph shows, for example, that four people only scored one goal with their six shots.

a. How many people were involved in the shoot-out?
Show how you obtain your answer.

b. Complete the table with values for the Mean, Median, Mode, and Range of scores.
Explain how you calculate each answer.

Mean score		
Median score		
Mode score		
Range of scores		

Student Materials

Mean, Median, Mode, and Range
© 2013 MARC, Shell Center, University of Nottingham

BEFORE THE LESSON

Assessment task: Penalty Shoot-Out (15 minutes)

Have students complete this task in class or for homework a few days before the formative assessment lesson. This will give you an opportunity to assess the work, and to find out the kinds of difficulties students have with it. You should then be able to target your help more effectively in the following lesson.

Give each student a copy of the assessment task: *Penalty Shoot-Out*.

Read through the questions and try to answer them as carefully as you can. It is important that, as far as possible, students answer them on their own.

Students should not worry too much if they cannot understand or do everything, because the next lesson they will work on a similar task, which should help them. Explain to students that by the end of the next lesson, they should be able to answer questions such as these confidently. This is their goal.

Assessing students' responses

Collect students' responses to the task. Make their correct level of understanding and their different problem-solving approaches.

We suggest that you do not score students' work. The research shows that this will be counterproductive, as it will encourage students to compare their scores and distract their attention from what they can do to improve their mathematics.

Instead, help students to progress by summarizing their difficulties as a series of questions. Some suggestions for these are given in the Common error table on the next page. There have been some from common difficulties observed in trials of this unit.

We suggest you make a list of your own questions, based on your students' work. We recommend you either:

- Write one or two questions on each student's work; or
- Give each student a printed version of your list of questions, and highlight the questions for each individual student.

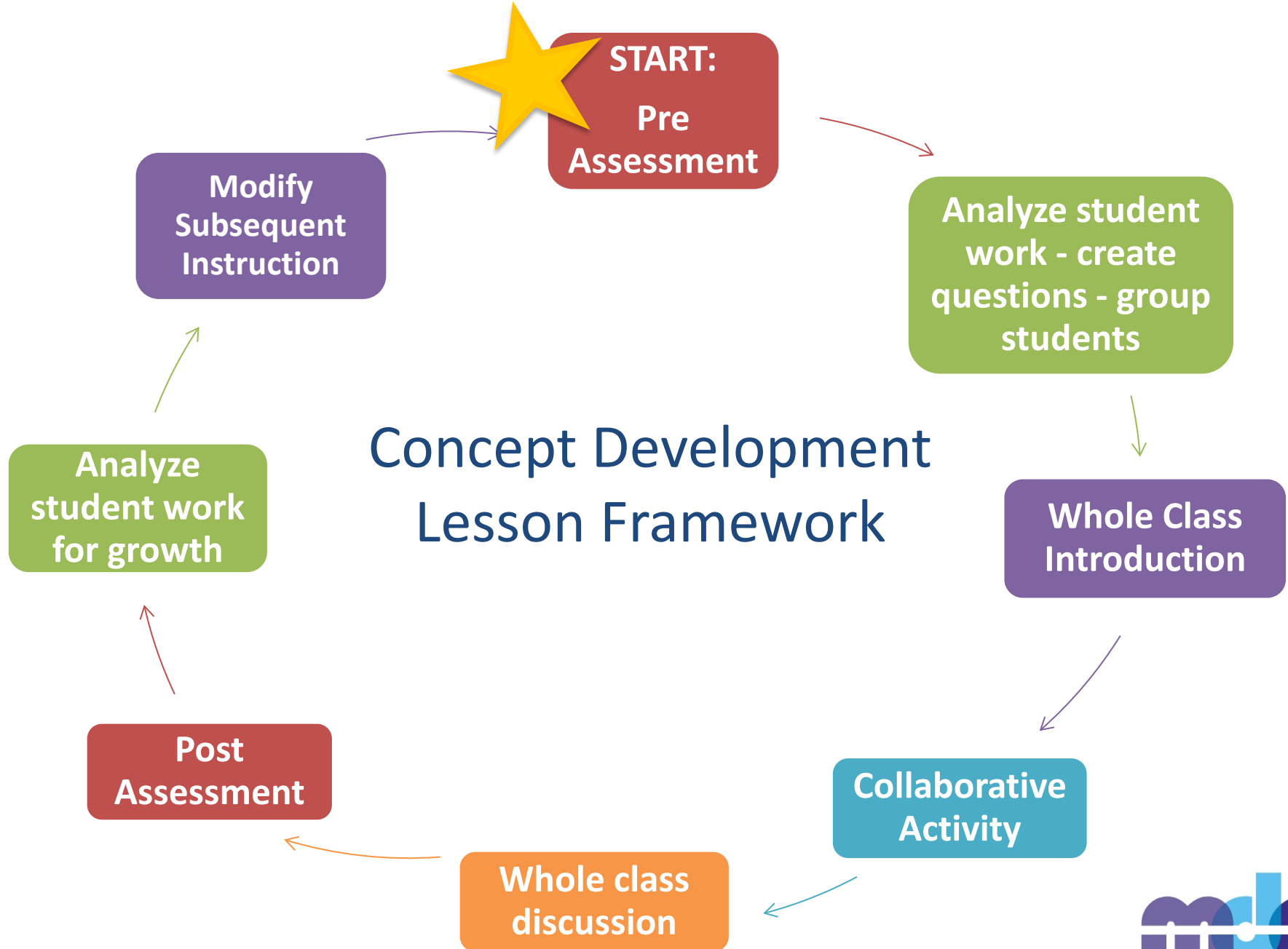
If you do not have time to do this, you could select a few questions that will be of help to the majority of students and write these on the board when you enter the work to the students.

Mean, Median, Mode, and Range

7/8

Can you find all of the key elements of Formative Assessment?

Concept Development Lesson Framework

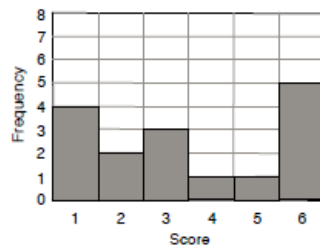


Mean, Median, Mode and Range

Pre-test

Penalty Shoot-Out

1. The bar chart represents the outcome of a penalty shoot-out competition. Each person in the competition was allowed six shots at the goal. The graph shows, for example, that four people only scored one goal with their six shots.



a. How many people were involved in the shoot-out?
Show how you obtain your answer.

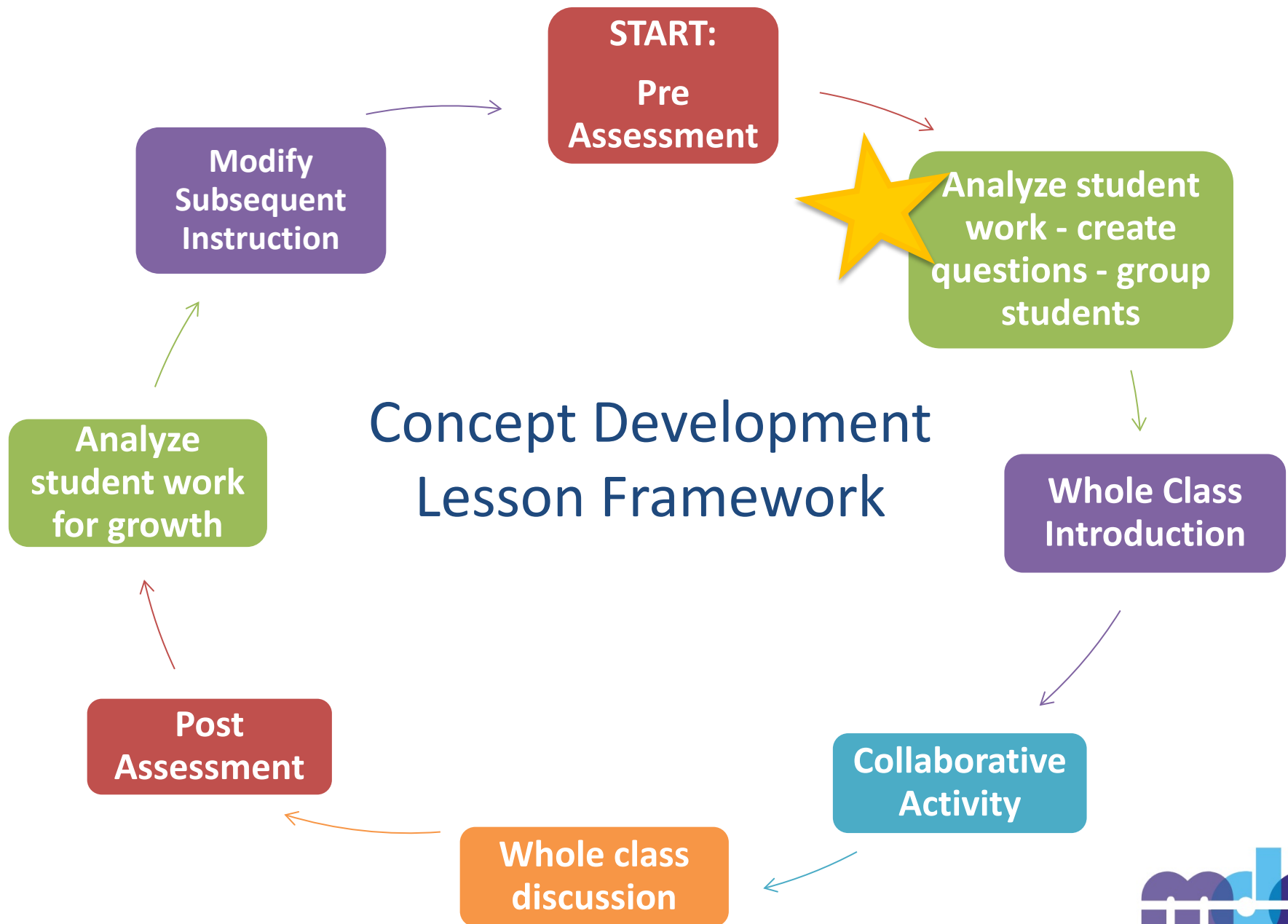
.....
.....

b. Complete the table with values for the Mean, Median, Mode, and Range of scores.
Explain how you calculate each answer.

Mean score	
Median score	
Mode score	
Range of scores	

- What do students know?
- What are the misconceptions?
- Where are there gaps in the understanding?
- How will I group students in order to support mathematical discourse?
- How can I analyze this now and later to show growth?

Concept Development Lesson Framework



Purpose of Analyzing Student Work

- To create feedback questions
 - Guiding students toward a deeper understanding
 - Moving students forward
- To group students
 - Homogeneously in Concept Development Lessons
 - Heterogeneously in Problem Solving Lessons
- To prepare for the lesson

“Don’t Prevent Students’ Mistakes, Prepare for the Them.”

Analyzing Student Pre-Assessment

- What do students know?
- What are the misconceptions?
- Where are the gaps in understanding?

Prepare Feedback Questions



Provide Feedback

- If you were the teacher of these students, what feedback would you give them?

Activity:

With a your elbow buddy: Analyze 3 students

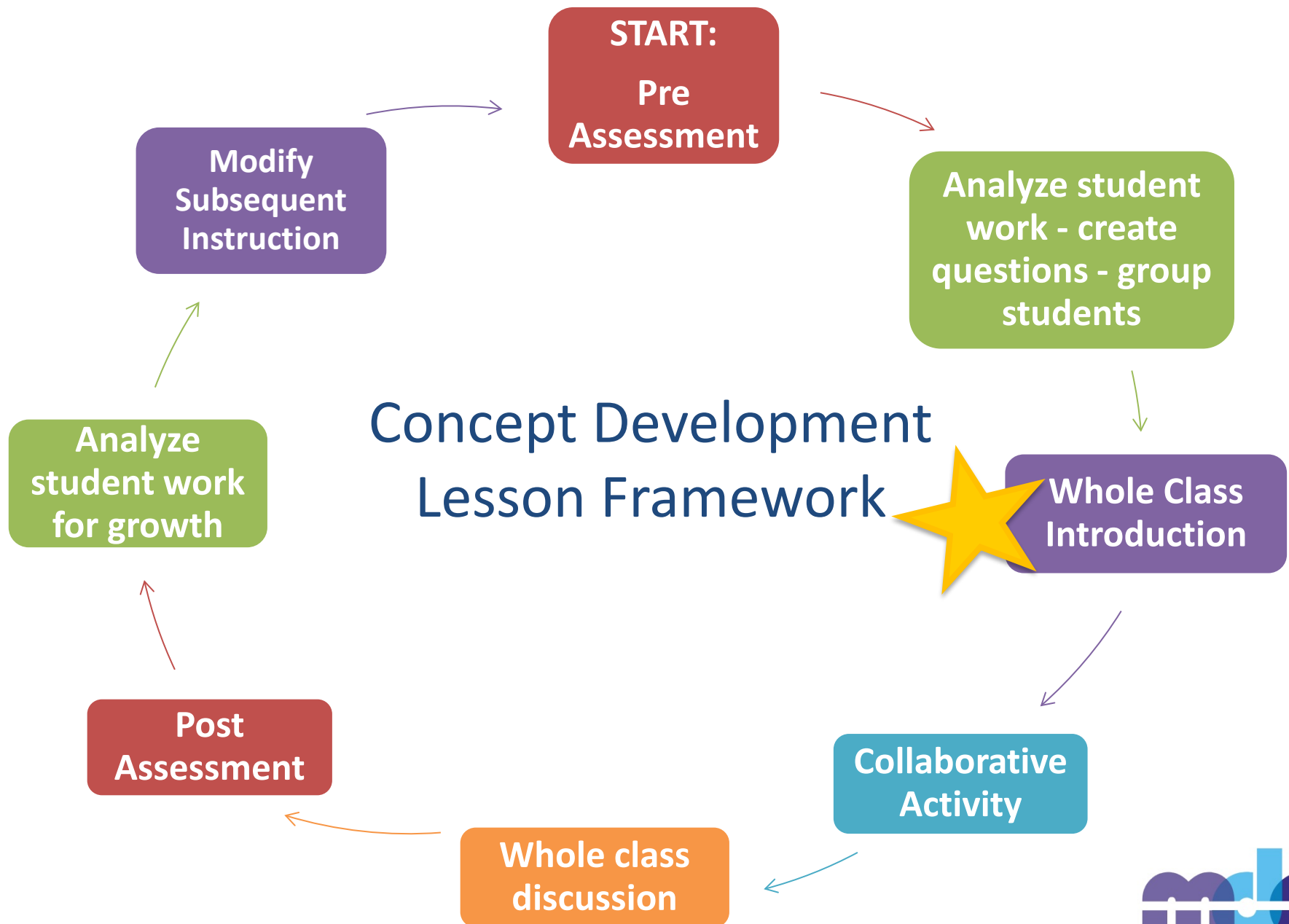
- Write down at least 3 misconceptions.
- Write down 1 question you would use to move student forward.

Common Misconceptions

Common issues	Suggested questions and prompts
Misinterprets the axes on the bar chart For example: The student states that there were six people involved in the shoot-out (Q1a). Or: The student does not understand the term 'Frequency'.	<ul style="list-style-type: none"> Complete this sentence "This bar shows that" (indicate one of the bars). What does the term 'Frequency' mean? How many people scored three goals? How many people scored four goals?
Uses incorrect values when calculating the mean For example: The student finds the total of the frequencies rather than the total number of goals. Or: The student divides by six rather than the total frequency. Or: The student adds the scores: $(1 + 2 + 3 + 4 + 5 + 6)$ and divides this total by 6.	<ul style="list-style-type: none"> How many goals were scored? Six goals were scored five times. So what is the total number of goals? Compare this to your total, what do you notice? Imagine writing the scores out as a list. From this list, how would you work out the mean?
Confuses the position of the median with the value for the median For example: The student adds one to the total frequency and divides by two to give a median of 8.5 (Q1b). Or: The student just divides the frequency by two (Q1b). Or: The student assumes the median is 3.5, half way between 1 and 6 Or: The student writes two values for the median, 3 and 4.	<ul style="list-style-type: none"> The median is the middle score when all the scores are in order. Is this what you have found? Try writing the scores in order: 1,1,1,1,2,2,3,..... Which is the middle score? How could you do this directly from the frequency graph without writing a list?
Presents the range as two figures, the highest and the lowest scores	<ul style="list-style-type: none"> What calculation is needed to obtain the range?
Calculates the range in frequencies rather than the range of goals scored.	<ul style="list-style-type: none"> What was the highest number of goals scored? What was the lowest number of goals scored?
Reads off the frequency of the tallest bar as the mode, rather than the score For example: The student gives the mode as 5 Q1b.	<ul style="list-style-type: none"> Which score was the most popular? How can you tell?
Draws a bar chart that satisfies none or some of the criteria given in the table (Q2) For example: The student draws a bar chart with a mode of 4 but the other values in the table are not satisfied.	<ul style="list-style-type: none"> Check that your bar chart works for all the values in the table. What is the mean/median/mode/range? Can you use the bar chart to draw a frequency table?
Completes the task The student needs an extension task	<ul style="list-style-type: none"> Can you produce a different bar chart (to Q2) that describes the same data measures? What is the same and what is different?

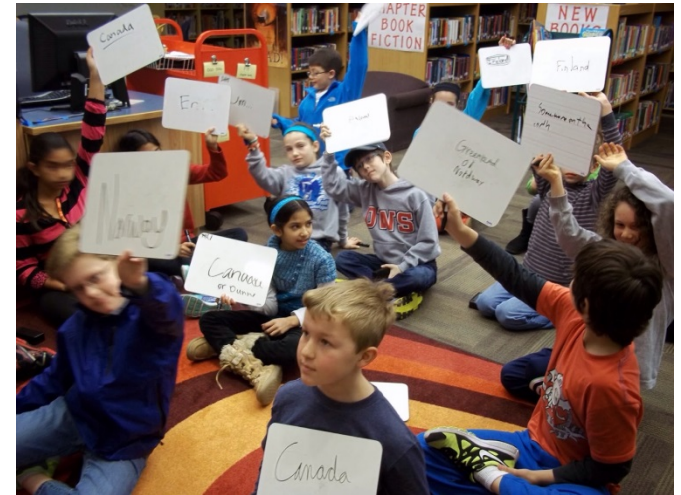
p. T-3

Concept Development Lesson Framework



Whole Class Introduction

- Use to introduce collaborative activity
- Less than 20 minutes
- Engage students
- Encourage “think aloud”



Computer Games: Ratings

SUGGESTED LESSON OUTLINE

Whole-class introduction (20 minutes)

Give each student a mini-whiteboard, a pen, and an eraser.

Display Slide P-1 of the projector resource:



Many students may be aware of rating systems used on popular websites. Ask students to name a computer game that most people know. If more than one computer game is suggested then you want to ask the class to vote on which one they want to rate.

Once the computer game has been agreed upon, ask students to rate the game by writing a score between 1 and 6 on their whiteboards (if you prefer, you could use pieces of paper or card rather than whiteboards.)

How would you rate the game on a scale of 1 to 6 where 1 = poor and 6 = great?

On your whiteboard [paper] show me your score for the game. It must be whole number e.g. 2½ is not allowed.

The results of the student survey will be used to produce a bar chart from which the process of using the bar chart to find the mean, median, mode, and range will be discussed.

Before you do this, question students on efficient ways of recording the data collected in the class. The focus here is on an efficient method for collecting the scores rather than different ways of displaying the data.

You have each got a score for the game. How can we record the scores for the class on the board?

Students may suggest writing a list of the responses or creating a tally. Discuss the benefits of using a list or tally when the data is not being collected simultaneously e.g. surveying makes of cars driving past a certain point. Emphasize the difference between this kind of data collection and the data that has just been collected by the class, whilst highlighting the importance of using an efficient method.

If students have not already suggested it, introduce the idea of a frequency table and check that students understand the term 'Frequency':

In math, what does the word 'Frequency' mean?

In this case, can you think of an equivalent phrase?

Why do we use 'Frequency' instead of (the equivalent phrase)?

[Frequency is a general term that can be used when working with data. It is usually an abbreviation of a longer, more specific phrase.]

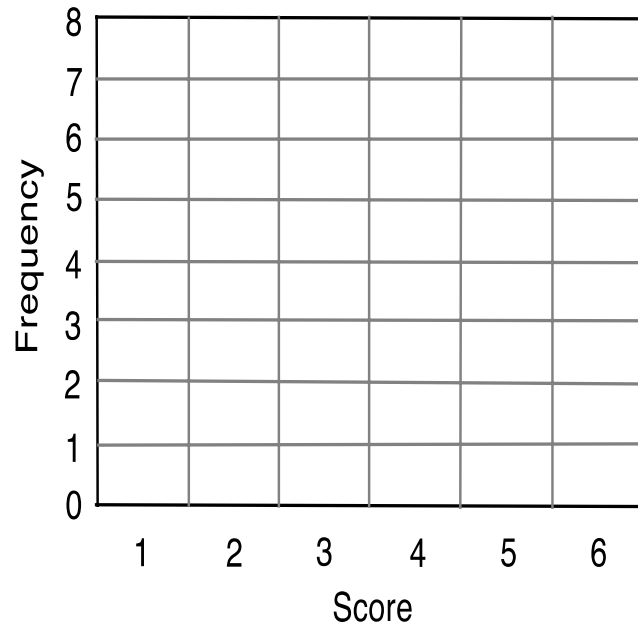


Imagine rating a popular computer game.

You can give the game a score of between 1 and 6.

Bar Chart from a Frequency Table

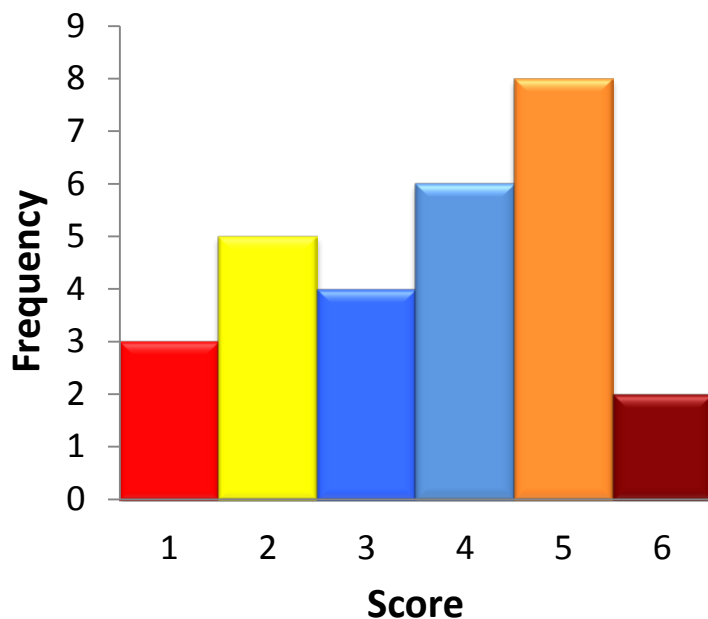
Score	1	2	3	4	5	6
Frequency						



Mean score	
Median score	
Mode score	
Range of scores	

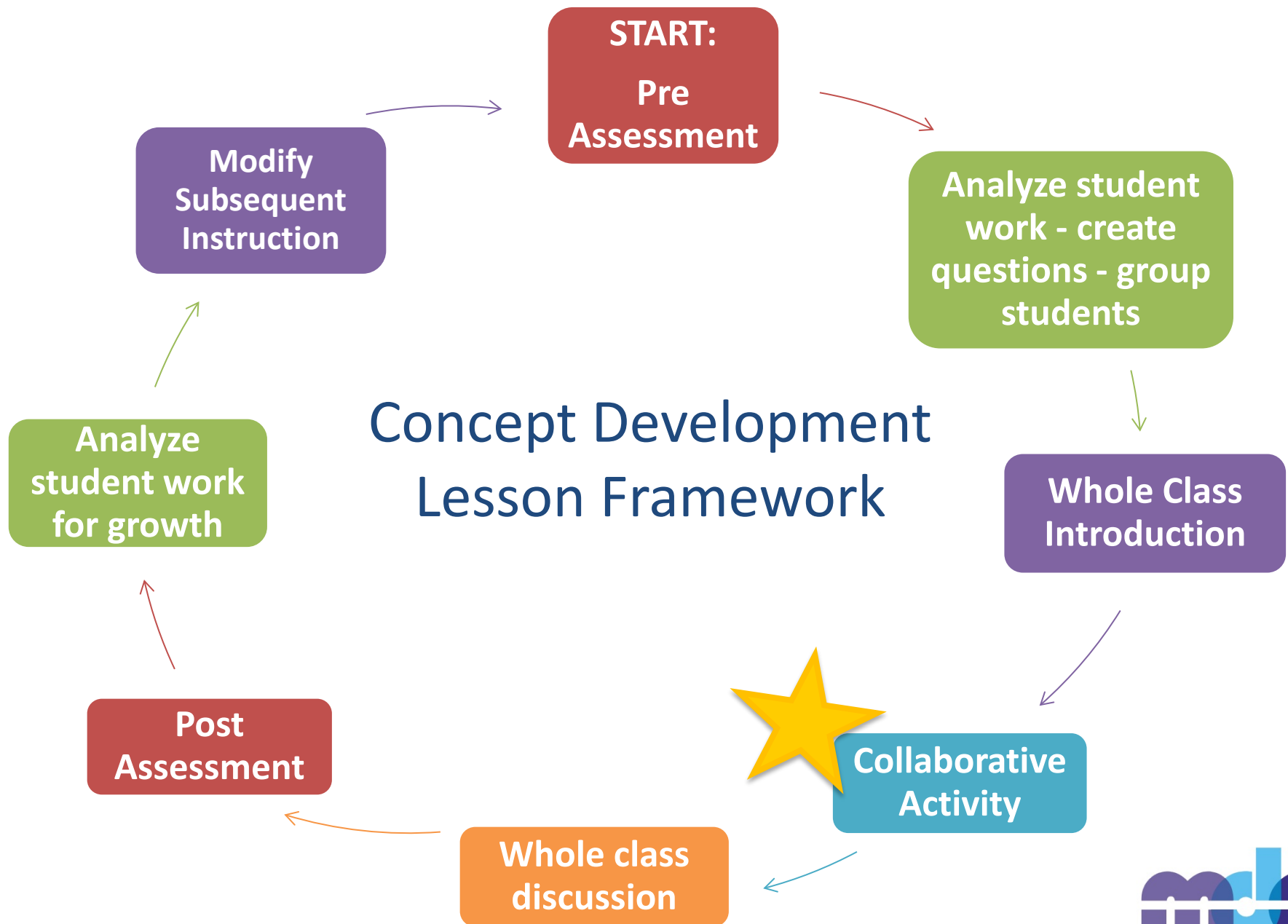
Whole Class Discussion

Score	1	2	3	4	5	6
Frequency	3	5	4	6	8	2

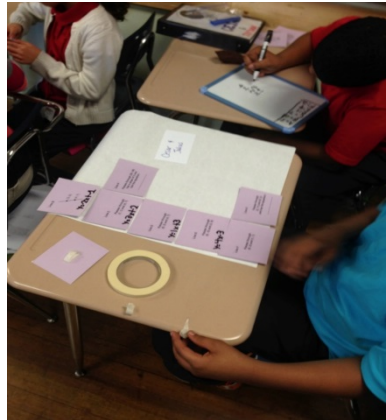


Mean score	Average (3.6)
Median score	Middle (4)
Mode score	Most (5)
Range of scores	H-L (5)

Concept Development Lesson Framework

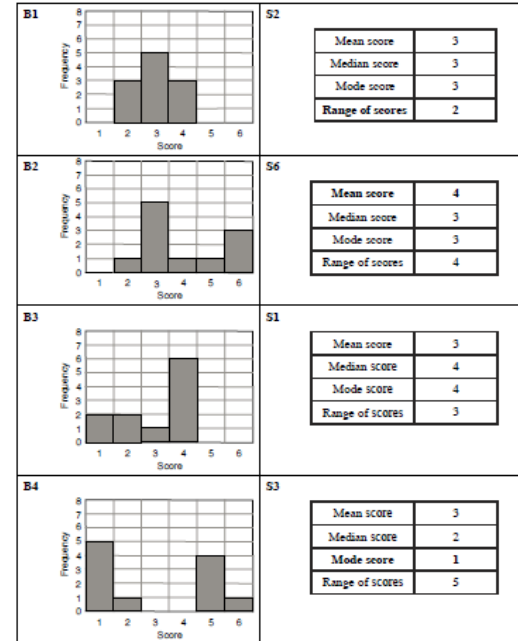


Collaborative Activity



Collaborative Activity: Card Matching

Missing values to be completed by students are in bold.

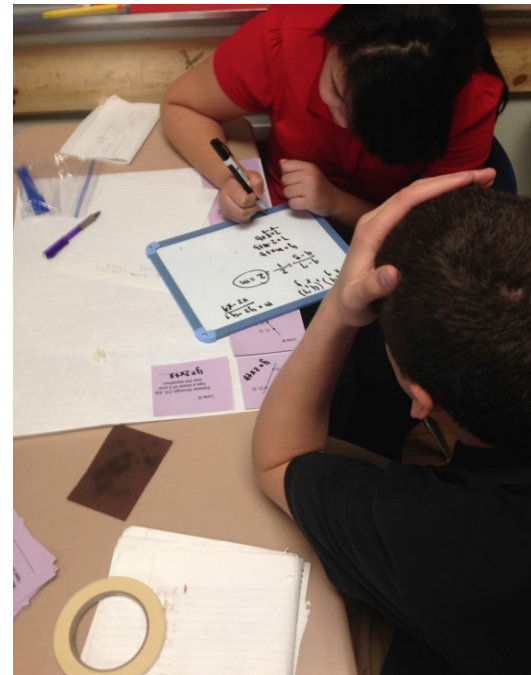
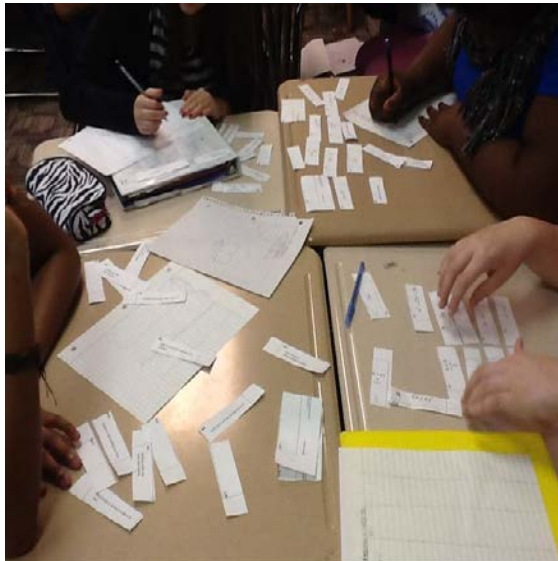


Teacher guide

Mean, Median, Mode, and Range

T-10

- For **concept development** lessons
 - Homogeneous grouping
 - Partners for maximum interaction



Activity: Matching Cards

1. Each time you match a pair of cards, explain your thinking clearly and carefully.
2. Partners should either agree with the explanation or challenge it if it is unclear or incomplete.
3. Once agreed stick the cards onto the poster and write a justification next to the cards.
4. Some of the statistics tables have gaps in them and one of the bar charts is blank. You will need to complete these cards.

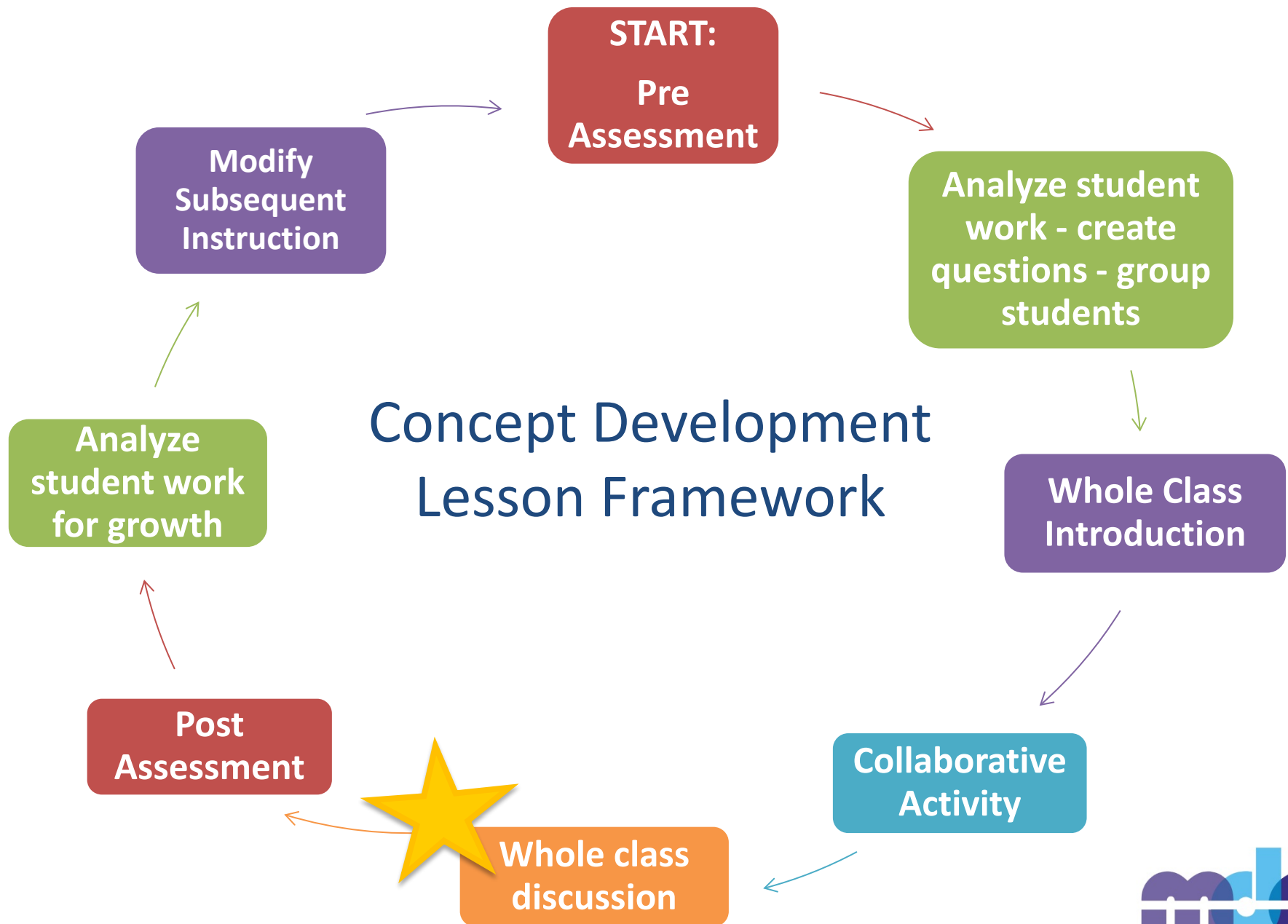
Sharing Posters

1. One person from each group visit a different group and look carefully at their matched cards.
2. Check the cards and point out any cards you think are incorrect. You must give a reason why you think the card is incorrectly matched or completed, but do not make changes to the card.
3. Return to your original group, review your own matches and make any necessary changes using arrows to show if card needs to move.

What Math Practices
Did You Use to
Complete the Activity?



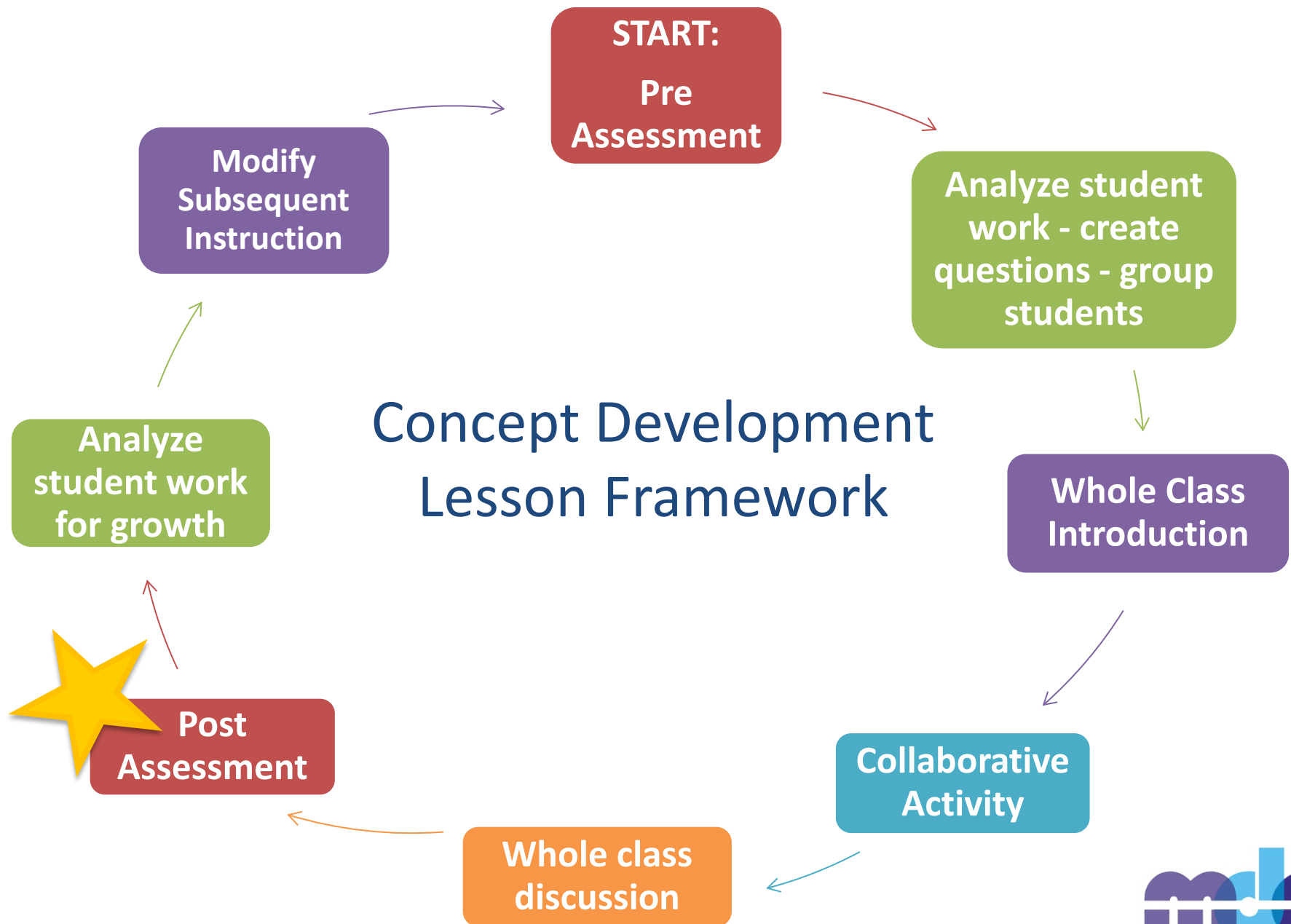
Concept Development Lesson Framework



Whole Class Discussion

- Have a couple groups draw and explain how they filled in their blank table from the card sort activity.
- Which cards were the easiest to match? Why?
- Which cards were difficult to match? Why?
- What strategies did you use?

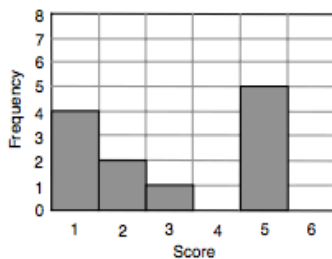
Concept Development Lesson Framework



Post-Lesson Assessment

Boy Bands

1. The bar chart represents the scores from a quiz.
Children were asked to name six boy bands in 30 seconds.
Each score represents the number of correctly named bands.



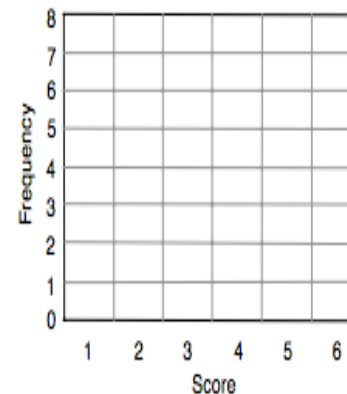
- a. How many children were involved in the quiz? Show how you obtain your answer.

- b. Complete the table with values for the Mean, Median, Mode, and Range of scores.
Explain how you calculate each answer.

Mean score		
Median score		
Mode score		
Range of scores		

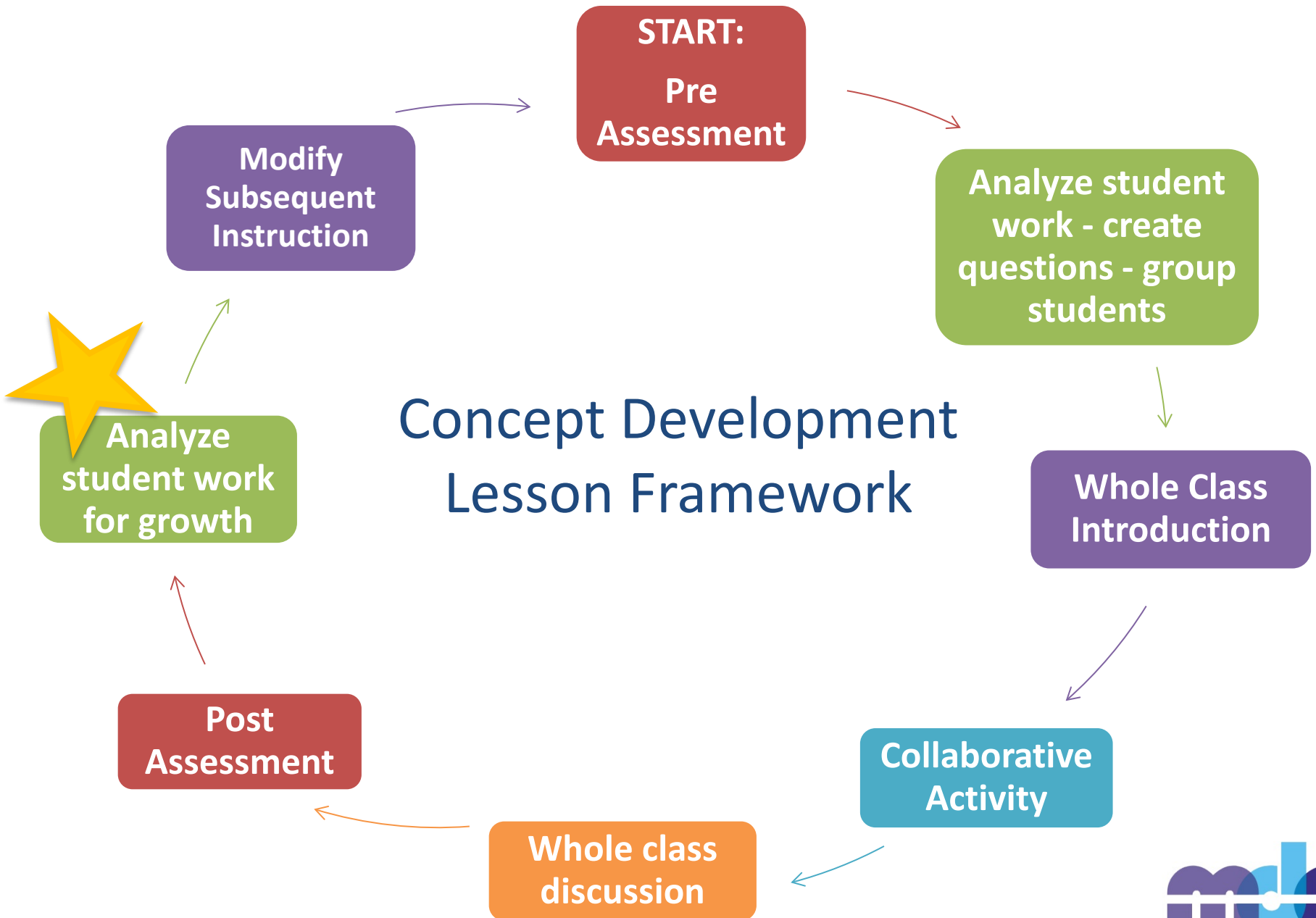
2. The results of another quiz question is shown in the table below.
Draw a possible bar chart of the scores:

Mean score	4
Median score	3.5
Mode score	3
Range of scores	4



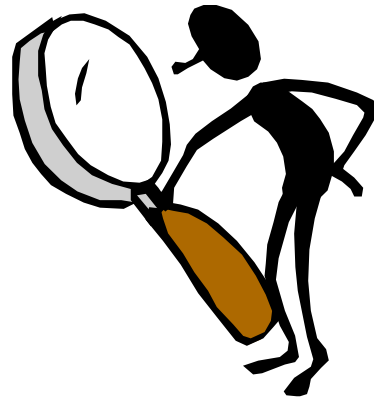
Show all your work.

Concept Development Lesson Framework



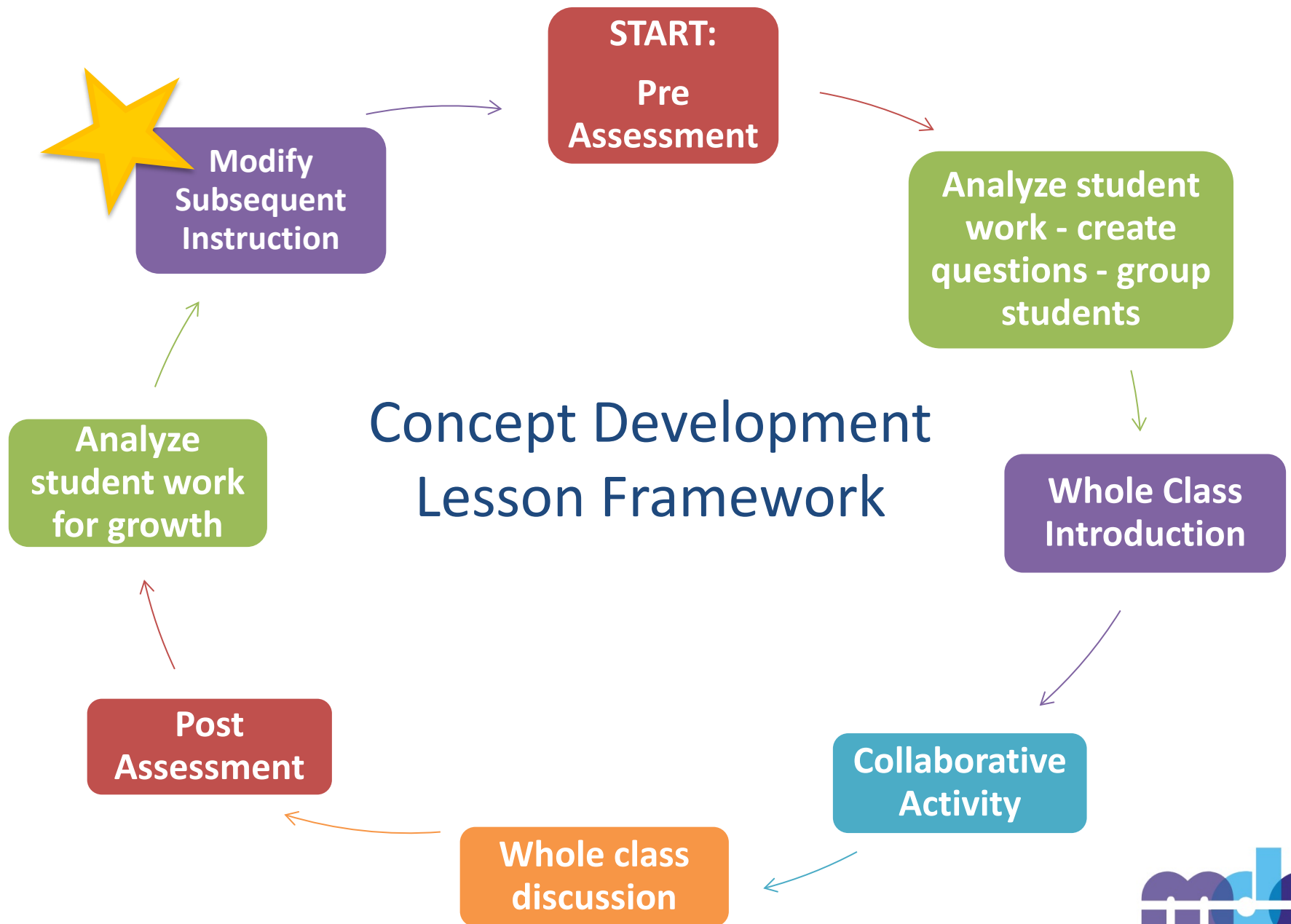
Post Lesson Analysis

- Look at “Post” packet.
- Take a quick look at the same students you had earlier.
- Compare the last problem for all.
- Was progress made?



Record Results

Subject:		6th Grade Math					
Formative Assessment Lesson:		Mean, Median, Mode, Range					
Total Number of Students:		19					
Total Percentage	Pre-Test	42%	89%	68%	37%	47%	100%
	Post-Test	26%	37%	21%	0%	0%	95%
Total Count	Pre-Test	8	17	13	7	9	19
	Post-Test	5	7	4	0	0	18
		Student Misconceptions					
Student		Confused frequency with the number of children involved	Did not account for all scores correctly when calculating the Mean	Miscalculated when counting off for Median	Failed to carefully check for the most occurring number, often chose 1 rather than 6	Confused frequency numbers with range data (score)	Had difficulty working backwards when given the Mean, Median, Mode, and Range



Change in Instruction Based on Evidence

Subject:		6th Grade Math					
Formative Assessment Lesson:		Mean, Median, Mode, Range					
Total Number of Students:		19					
Total Percentage	Pre-Test	42%	89%	68%	37%	47%	100%
	Post-Test	26%	37%	21%	0%	0%	95%
Total Count	Pre-Test	8	17	13	7	9	19
	Post-Test	5	7	4	0	0	18
		Student Misconceptions					
Student		Confused frequency with the number of children involved	Did not account for all scores correctly when calculating the Mean	Miscalculated when counting off for Median	Failed to carefully check for the most occurring number, often chose 1 rather than 6	Confused frequency numbers with range data (score)	Had difficulty working backwards when given the Mean, Median, Mode, and Range

Concept Development Lesson Summary

Concept Development Lessons are meant to first reveal students' prior knowledge, then develop students' understanding of important mathematical ideas, connecting concepts to other mathematical knowledge.



[Video: What is MDC?](#)

Do you have
any questions?



MDC Lessons and Professional Development Resources

Go to: map.mathshell.org

Mathematics Assessment Project
CLASSROOM CHALLENGES
Formative Assessment Lessons (beta) for Grade 6

Home | MAP Overview | Lessons | Tasks | Tests | Professional Development | TRU Math Suite | Standards | Instructions | Log in

Formative Assessment Lessons (beta) | Grade 6 | Find: | Go

► Read more about the purpose of the MAP Classroom Challenges...

Designing: Candy Cartons

Mathematical goals

This lesson unit is intended to help you assess how well students are able to:

- Select appropriate mathematical methods to use for an unstructured problem.
- Interpret a problem situation, identifying constraints and variables, and specify assumptions.
- Work with 2- and 3-dimensional shapes to solve a problem involving capacity and surface area.
- Communicate their reasoning clearly.

Introduction

This activity will take two lessons. The lessons are structured in the following way:

- Before the first lesson, students tackle the problem individually. You review their work and write questions to help students improve their solutions.
- At the beginning of the first lesson, students respond to your questions. They are then grouped into pairs and work collaboratively to produce better solutions to the same task, and use their designs to make two cartons.
- To launch the second lesson there is a whole-class discussion. Then in small groups students evaluate and comment on sample solutions, followed by a whole-class discussion about the work. Finally, students review and evaluate their work on the problem.

Materials required

Grade 6

Problem Solving

- Designing: Candy Cartons
- Optimizing: Security Cameras
- Sharing Costs: Travelling to School
- Solving Real-life Problems: Selling Soup
- Modeling: Car Skid Marks

Concept Development

Explore → Lessons,
Tasks, Professional
Development

Join SAS Community

PA Mathematics Design Collaborative

- See “PDE SAS - PA Mathematics Design Collaborative Community” direction sheet.
- [Link](#) to PDE SAS
 - Follow directions on sheet to take through website.

Additional FALs/Resources

Kentucky Department of Education

- <http://teresaemmert.weebly.com/elementary-formative-assessment-lessons.html>

Illustrative Mathematics

- <http://www.illustrativemathematics.org>

Creating Your Own FAL

- What elements have to be a part of the lessons structure?

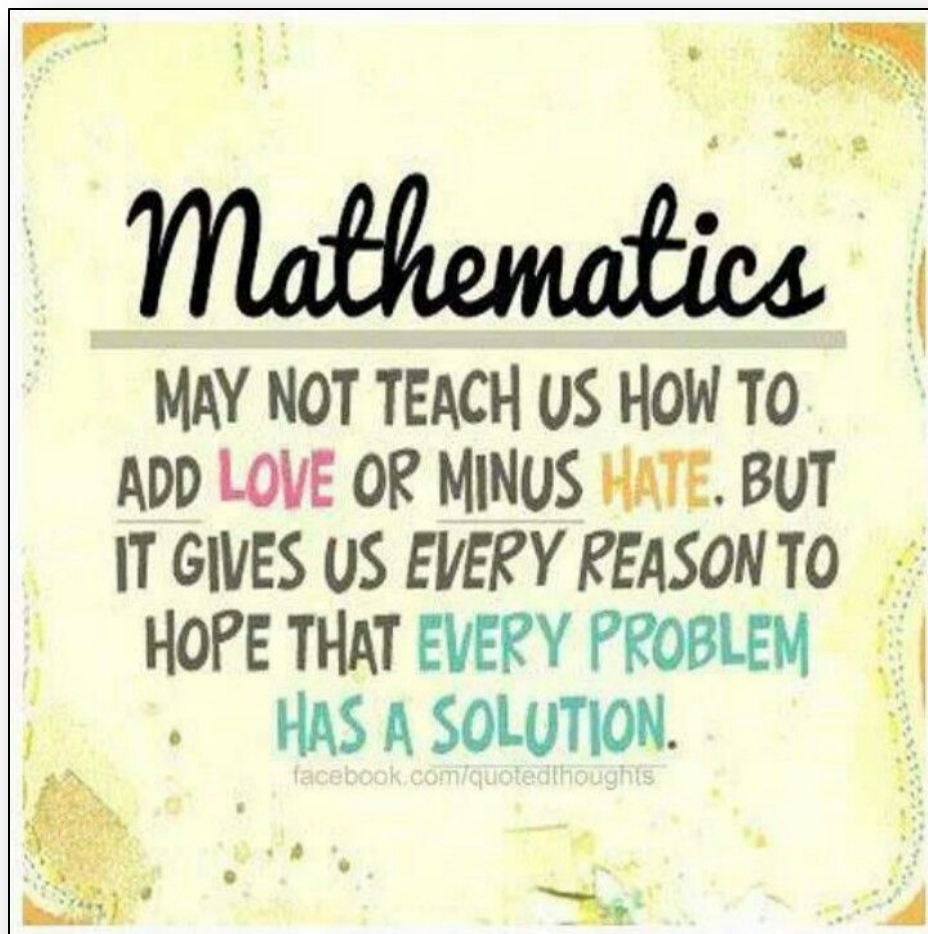
MDC Follow-Up Commitment

Schedule a time for Samantha or Jeremy to meet
with you at your district.



Dates: Jan 28 – March 30

Thank you for Coming!



Jeremy Gaborrin
jgaborrin@iu28.org

Samantha Glass
sglass@iu28.org